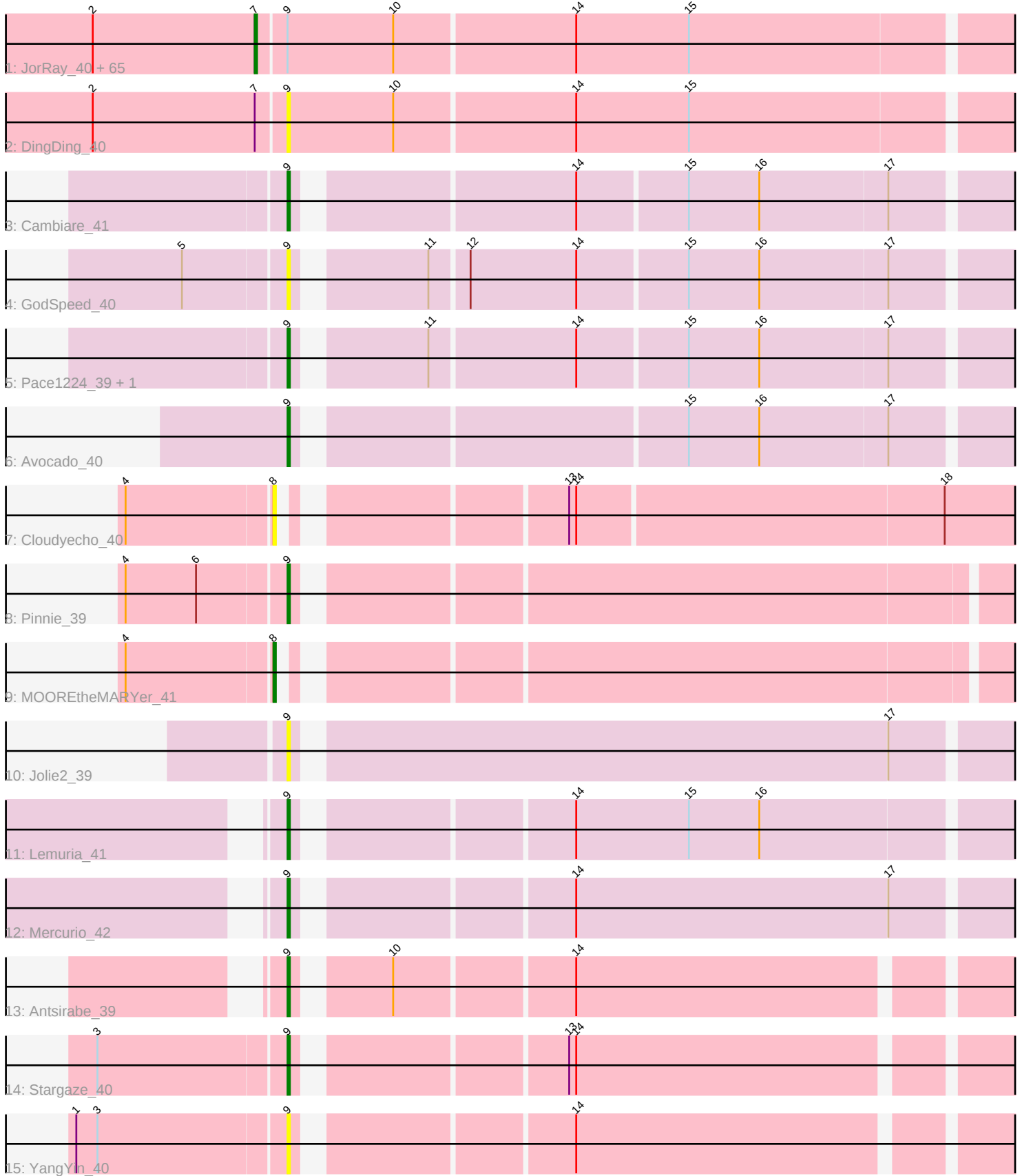


Pham 254006



Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 254006 Report

This analysis was run 02/07/26 on database version 634.

Pham number 254006 has 81 members, 15 are drafts.

Phages represented in each track:

- Track 1 : JorRay_40, Grizzly_40, OctaviousRex_40, Olga_40, LouisV14_42, Jolene_40, Phish_40, Cedasite_40, Cherrybomb426_40, BQuat_40, Jonghyun_39, Halo_40, ECartman_40, Maliketh_40, TomBrady_40, Zombie_40, CassieYates_40, Phreak_40, Annihilator_40, Liefie_40, Mowgli_40, Renaissance_40, Hotshotbaby7_40, Peeb_40, AzulaCat_40, Hope_40, Richarlison_40, BPs_40, Phloodle_40, Darionha_40, Remy19_40, PinkYoshi_40, Frosty24_40, Periodt_40, Gideon_40, Schiebel_40, Crespo_40, Jeilious_40, CLED96_40, Kareem_40, AizenPogi_40, DNAll_0039, Neoh_40, BruceB_40, ShaboiShabazz_40, Coleslaw_40, Aroostook_40, Marmie_40, TinaBug_40, Rattrick_40, Angel_40, Barkley26_40, Sweets_40, Chance64_40, ZoMa_40, Jane_40, Avrafan_40, DMoney_40, Gomashi_40, Kasen3_40, GoldenAsh_40, Ruriko_40, Wendigo_40, Plagueis_40, Camri_40, Sizemore_40
- Track 2 : DingDing_40
- Track 3 : Cambiare_41
- Track 4 : GodSpeed_40
- Track 5 : Pace1224_39, FlagStaff_39
- Track 6 : Avocado_40
- Track 7 : Cloudyecho_40
- Track 8 : Pinnie_39
- Track 9 : MOOREtheMARYer_41
- Track 10 : Jolie2_39
- Track 11 : Lemuria_41
- Track 12 : Mercurio_42
- Track 13 : Antsirabe_39
- Track 14 : Stargaze_40
- Track 15 : YangYin_40

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 7, it was called in 57 of the 66 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AizenPogi_40, Angel_40, Annihilator_40, Aroostook_40, Avrafan_40, AzulaCat_40, BPs_40, BQuat_40, Barkley26_40, BruceB_40, CLED96_40, Camri_40, CassieYates_40, Cedasite_40, Chance64_40, Cherrybomb426_40, Coleslaw_40, Crespo_40, DMoney_40, DNAIII_0039, Darionha_40, ECartman_40, Frosty24_40, Gideon_40, GoldenAsh_40, Gomashi_40, Grizzly_40, Halo_40, Hope_40, Hotshotbaby7_40, Jane_40, Jeilious_40, Jolene_40, Jonghyun_39, JorRay_40, Kareem_40, Kasen3_40, Liefie_40, LouisV14_42, Maliketh_40, Marmie_40, Mowgli_40, Neoh_40, OctaviousRex_40, Olga_40, Peeb_40, Periodt_40, Phish_40, Phloodle_40, Phreak_40, PinkYoshi_40, Plagueis_40, Rattrick_40, Remy19_40, Renaissance_40, Richarlison_40, Ruriko_40, Schiebel_40, ShaboiShabazz_40, Sizemore_40, Sweets_40, TinaBug_40, TomBrady_40, Wendigo_40, ZoMa_40, Zombie_40,

Genes that have the "Most Annotated" start but do not call it:

- DingDing_40,

Genes that do not have the "Most Annotated" start:

- Antsirabe_39, Avocado_40, Cambiare_41, Cloudyecho_40, FlagStaff_39, GodSpeed_40, Jolie2_39, Lemuria_41, MOOREtheMARYer_41, Mercurio_42, Pace1224_39, Pinnie_39, Stargaze_40, YangYin_40,

Summary by start number:

Start 7:

- Found in 67 of 81 (82.7%) of genes in pham
- Manual Annotations of this start: 57 of 66
- Called 98.5% of time when present
- Phage (with cluster) where this start called: AizenPogi_40 (G1), Angel_40 (G1), Annihilator_40 (G1), Aroostook_40 (G1), Avrafan_40 (G1), AzulaCat_40 (G1), BPs_40 (G1), BQuat_40 (G1), Barkley26_40 (G1), BruceB_40 (G1), CLED96_40 (G1), Camri_40 (G1), CassieYates_40 (G1), Cedasite_40 (G1), Chance64_40 (G1), Cherrybomb426_40 (G1), Coleslaw_40 (G1), Crespo_40 (G1), DMoney_40 (G1), DNAIII_0039 (G1), Darionha_40 (G1), ECartman_40 (G1), Frosty24_40 (G1), Gideon_40 (G1), GoldenAsh_40 (G1), Gomashi_40 (G1), Grizzly_40 (G1), Halo_40 (G1), Hope_40 (G1), Hotshotbaby7_40 (G1), Jane_40 (G1), Jeilious_40 (G), Jolene_40 (G1), Jonghyun_39 (G1), JorRay_40 (G1), Kareem_40 (G1), Kasen3_40 (G1), Liefie_40 (G1), LouisV14_42 (G1), Maliketh_40 (G1), Marmie_40 (G1), Mowgli_40 (G1), Neoh_40 (G), OctaviousRex_40 (G1), Olga_40 (G1), Peeb_40 (G1), Periodt_40 (G1), Phish_40 (G1), Phloodle_40 (G1), Phreak_40 (G1), PinkYoshi_40 (G1), Plagueis_40 (G1), Rattrick_40 (G1), Remy19_40 (G1), Renaissance_40 (G1), Richarlison_40 (G1), Ruriko_40 (G1), Schiebel_40 (G1), ShaboiShabazz_40 (G1), Sizemore_40 (G1), Sweets_40 (G1), TinaBug_40 (G1), TomBrady_40 (G1), Wendigo_40 (G1), ZoMa_40 (G1), Zombie_40 (G1),

Start 8:

- Found in 2 of 81 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cloudyecho_40 (G3), MOOREtheMARYer_41 (G3),

Start 9:

- Found in 79 of 81 (97.5%) of genes in pham

- Manual Annotations of this start: 8 of 66
- Called 16.5% of time when present
- Phage (with cluster) where this start called: Antsirabe_39 (G5), Avocado_40 (G2), Cambiare_41 (G2), DingDing_40 (G1), FlagStaff_39 (G2), GodSpeed_40 (G2), Jolie2_39 (G4), Lemuria_41 (G4), Mercurio_42 (G4), Pace1224_39 (G2), Pinnie_39 (G3), Stargaze_40 (G5), YangYin_40 (G5),

Summary by clusters:

There are 6 clusters represented in this pham: G5, G4, G3, G2, G, G1,

Info for manual annotations of cluster G1:

- Start number 7 was manually annotated 57 times for cluster G1.

Info for manual annotations of cluster G2:

- Start number 9 was manually annotated 3 times for cluster G2.

Info for manual annotations of cluster G3:

- Start number 8 was manually annotated 1 time for cluster G3.
- Start number 9 was manually annotated 1 time for cluster G3.

Info for manual annotations of cluster G4:

- Start number 9 was manually annotated 2 times for cluster G4.

Info for manual annotations of cluster G5:

- Start number 9 was manually annotated 2 times for cluster G5.

Gene Information:

Gene: AizenPogi_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for AizenPogi_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Angel_40 Start: 31409, Stop: 31759, Start Num: 7

Candidate Starts for Angel_40:

(2, 31340), (Start: 7 @31409 has 57 MA's), (Start: 9 @31421 has 8 MA's), (10, 31466), (14, 31541), (15, 31589),

Gene: Annihilator_40 Start: 31415, Stop: 31765, Start Num: 7

Candidate Starts for Annihilator_40:

(2, 31346), (Start: 7 @31415 has 57 MA's), (Start: 9 @31427 has 8 MA's), (10, 31472), (14, 31547), (15, 31595),

Gene: Antsirabe_39 Start: 32012, Stop: 32317, Start Num: 9

Candidate Starts for Antsirabe_39:

(Start: 9 @32012 has 8 MA's), (10, 32045), (14, 32117),

Gene: Aroostook_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Aroostook_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Avocado_40 Start: 32687, Stop: 33001, Start Num: 9

Candidate Starts for Avocado_40:

(Start: 9 @32687 has 8 MA's), (15, 32840), (16, 32870), (17, 32924),

Gene: Avrafan_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Avrafan_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: AzulaCat_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for AzulaCat_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: BPs_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for BPs_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: BQuat_40 Start: 31415, Stop: 31765, Start Num: 7

Candidate Starts for BQuat_40:

(2, 31346), (Start: 7 @31415 has 57 MA's), (Start: 9 @31427 has 8 MA's), (10, 31472), (14, 31547), (15, 31595),

Gene: Barkley26_40 Start: 31431, Stop: 31781, Start Num: 7

Candidate Starts for Barkley26_40:

(2, 31362), (Start: 7 @31431 has 57 MA's), (Start: 9 @31443 has 8 MA's), (10, 31488), (14, 31563), (15, 31611),

Gene: BruceB_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for BruceB_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: CLED96_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for CLED96_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Cambiare_41 Start: 32954, Stop: 33268, Start Num: 9

Candidate Starts for Cambiare_41:

(Start: 9 @32954 has 8 MA's), (14, 33062), (15, 33107), (16, 33137), (17, 33191),

Gene: Camri_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Camri_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: CassieYates_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for CassieYates_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Cedasite_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Cedasite_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Chance64_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Chance64_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Cherrybomb426_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Cherrybomb426_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Cloudyecho_40 Start: 32381, Stop: 32704, Start Num: 8

Candidate Starts for Cloudyecho_40:

(4, 32321), (Start: 8 @32381 has 1 MA's), (13, 32483), (14, 32486), (18, 32639),

Gene: Coleslaw_40 Start: 31415, Stop: 31765, Start Num: 7

Candidate Starts for Coleslaw_40:

(2, 31346), (Start: 7 @31415 has 57 MA's), (Start: 9 @31427 has 8 MA's), (10, 31472), (14, 31547), (15, 31595),

Gene: Crespo_40 Start: 31425, Stop: 31775, Start Num: 7

Candidate Starts for Crespo_40:

(2, 31356), (Start: 7 @31425 has 57 MA's), (Start: 9 @31437 has 8 MA's), (10, 31482), (14, 31557), (15, 31605),

Gene: DMoney_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for DMoney_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: DNAIII_0039 Start: 30058, Stop: 30408, Start Num: 7

Candidate Starts for DNAIII_0039:

(2, 29989), (Start: 7 @30058 has 57 MA's), (Start: 9 @30070 has 8 MA's), (10, 30115), (14, 30190), (15, 30238),

Gene: Darionha_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Darionha_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: DingDing_40 Start: 31436, Stop: 31774, Start Num: 9

Candidate Starts for DingDing_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: ECartman_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for ECartman_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: FlagStaff_39 Start: 32112, Stop: 32426, Start Num: 9

Candidate Starts for FlagStaff_39:

(Start: 9 @32112 has 8 MA's), (11, 32160), (14, 32220), (15, 32265), (16, 32295), (17, 32349),

Gene: Frosty24_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Frosty24_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Gideon_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Gideon_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: GodSpeed_40 Start: 32209, Stop: 32520, Start Num: 9

Candidate Starts for GodSpeed_40:

(5, 32167), (Start: 9 @32209 has 8 MA's), (11, 32257), (12, 32272), (14, 32317), (15, 32362), (16, 32392), (17, 32446),

Gene: GoldenAsh_40 Start: 31409, Stop: 31759, Start Num: 7

Candidate Starts for GoldenAsh_40:

(2, 31340), (Start: 7 @31409 has 57 MA's), (Start: 9 @31421 has 8 MA's), (10, 31466), (14, 31541), (15, 31589),

Gene: Gomashi_40 Start: 31425, Stop: 31775, Start Num: 7

Candidate Starts for Gomashi_40:

(2, 31356), (Start: 7 @31425 has 57 MA's), (Start: 9 @31437 has 8 MA's), (10, 31482), (14, 31557), (15, 31605),

Gene: Grizzly_40 Start: 31409, Stop: 31759, Start Num: 7

Candidate Starts for Grizzly_40:

(2, 31340), (Start: 7 @31409 has 57 MA's), (Start: 9 @31421 has 8 MA's), (10, 31466), (14, 31541), (15, 31589),

Gene: Halo_40 Start: 31419, Stop: 31769, Start Num: 7

Candidate Starts for Halo_40:

(2, 31350), (Start: 7 @31419 has 57 MA's), (Start: 9 @31431 has 8 MA's), (10, 31476), (14, 31551), (15, 31599),

Gene: Hope_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Hope_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Hotshotbaby7_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Hotshotbaby7_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Jane_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Jane_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Jeilious_40 Start: 31423, Stop: 31773, Start Num: 7

Candidate Starts for Jeilious_40:

(2, 31354), (Start: 7 @31423 has 57 MA's), (Start: 9 @31435 has 8 MA's), (10, 31480), (14, 31555), (15, 31603),

Gene: Jolene_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Jolene_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Jolie2_39 Start: 31053, Stop: 31388, Start Num: 9

Candidate Starts for Jolie2_39:

(Start: 9 @31053 has 8 MA's), (17, 31296),

Gene: Jonghyun_39 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Jonghyun_39:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: JorRay_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for JorRay_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Kareem_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Kareem_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Kasen3_40 Start: 31410, Stop: 31760, Start Num: 7

Candidate Starts for Kasen3_40:

(2, 31341), (Start: 7 @31410 has 57 MA's), (Start: 9 @31422 has 8 MA's), (10, 31467), (14, 31542), (15, 31590),

Gene: Lemuria_41 Start: 32422, Stop: 32733, Start Num: 9

Candidate Starts for Lemuria_41:

(Start: 9 @32422 has 8 MA's), (14, 32527), (15, 32575), (16, 32605),

Gene: Liefie_40 Start: 31422, Stop: 31772, Start Num: 7

Candidate Starts for Liefie_40:

(2, 31353), (Start: 7 @31422 has 57 MA's), (Start: 9 @31434 has 8 MA's), (10, 31479), (14, 31554), (15, 31602),

Gene: LouisV14_42 Start: 33689, Stop: 34039, Start Num: 7

Candidate Starts for LouisV14_42:

(2, 33620), (Start: 7 @33689 has 57 MA's), (Start: 9 @33701 has 8 MA's), (10, 33746), (14, 33821), (15, 33869),

Gene: MOOREtheMARYer_41 Start: 32645, Stop: 32965, Start Num: 8

Candidate Starts for MOOREtheMARYer_41:

(4, 32585), (Start: 8 @32645 has 1 MA's),

Gene: Maliketh_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Maliketh_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Marmie_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Marmie_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Mercurio_42 Start: 32919, Stop: 33233, Start Num: 9

Candidate Starts for Mercurio_42:

(Start: 9 @32919 has 8 MA's), (14, 33024), (17, 33156),

Gene: Mowgli_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Mowgli_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Neoh_40 Start: 31416, Stop: 31766, Start Num: 7

Candidate Starts for Neoh_40:

(2, 31347), (Start: 7 @31416 has 57 MA's), (Start: 9 @31428 has 8 MA's), (10, 31473), (14, 31548), (15, 31596),

Gene: OctaviousRex_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for OctaviousRex_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Olga_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Olga_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Pace1224_39 Start: 32112, Stop: 32426, Start Num: 9

Candidate Starts for Pace1224_39:

(Start: 9 @32112 has 8 MA's), (11, 32160), (14, 32220), (15, 32265), (16, 32295), (17, 32349),

Gene: Peeb_40 Start: 31409, Stop: 31759, Start Num: 7

Candidate Starts for Peeb_40:

(2, 31340), (Start: 7 @31409 has 57 MA's), (Start: 9 @31421 has 8 MA's), (10, 31466), (14, 31541), (15, 31589),

Gene: Periodt_40 Start: 31415, Stop: 31765, Start Num: 7

Candidate Starts for Periodt_40:

(2, 31346), (Start: 7 @31415 has 57 MA's), (Start: 9 @31427 has 8 MA's), (10, 31472), (14, 31547), (15, 31595),

Gene: Phish_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Phish_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Phloodle_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Phloodle_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Phreak_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Phreak_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: PinkYoshi_40 Start: 31415, Stop: 31765, Start Num: 7

Candidate Starts for PinkYoshi_40:

(2, 31346), (Start: 7 @31415 has 57 MA's), (Start: 9 @31427 has 8 MA's), (10, 31472), (14, 31547), (15, 31595),

Gene: Pinnie_39 Start: 32359, Stop: 32673, Start Num: 9

Candidate Starts for Pinnie_39:

(4, 32293), (6, 32323), (Start: 9 @32359 has 8 MA's),

Gene: Plagueis_40 Start: 31244, Stop: 31594, Start Num: 7

Candidate Starts for Plagueis_40:

(2, 31175), (Start: 7 @31244 has 57 MA's), (Start: 9 @31256 has 8 MA's), (10, 31301), (14, 31376), (15, 31424),

Gene: Rattrick_40 Start: 31415, Stop: 31765, Start Num: 7

Candidate Starts for Rattrick_40:

(2, 31346), (Start: 7 @31415 has 57 MA's), (Start: 9 @31427 has 8 MA's), (10, 31472), (14, 31547), (15, 31595),

Gene: Remy19_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Remy19_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Renaissance_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Renaissance_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Richarlison_40 Start: 31409, Stop: 31759, Start Num: 7

Candidate Starts for Richarlison_40:

(2, 31340), (Start: 7 @31409 has 57 MA's), (Start: 9 @31421 has 8 MA's), (10, 31466), (14, 31541), (15, 31589),

Gene: Ruriko_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Ruriko_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Schiebel_40 Start: 31409, Stop: 31759, Start Num: 7

Candidate Starts for Schiebel_40:

(2, 31340), (Start: 7 @31409 has 57 MA's), (Start: 9 @31421 has 8 MA's), (10, 31466), (14, 31541), (15, 31589),

Gene: ShaboiShabazz_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for ShaboiShabazz_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Sizemore_40 Start: 31410, Stop: 31760, Start Num: 7

Candidate Starts for Sizemore_40:

(2, 31341), (Start: 7 @31410 has 57 MA's), (Start: 9 @31422 has 8 MA's), (10, 31467), (14, 31542), (15, 31590),

Gene: Stargaze_40 Start: 32350, Stop: 32655, Start Num: 9

Candidate Starts for Stargaze_40:

(3, 32272), (Start: 9 @32350 has 8 MA's), (13, 32452), (14, 32455),

Gene: Sweets_40 Start: 31419, Stop: 31769, Start Num: 7

Candidate Starts for Sweets_40:

(2, 31350), (Start: 7 @31419 has 57 MA's), (Start: 9 @31431 has 8 MA's), (10, 31476), (14, 31551), (15, 31599),

Gene: TinaBug_40 Start: 31419, Stop: 31769, Start Num: 7

Candidate Starts for TinaBug_40:

(2, 31350), (Start: 7 @31419 has 57 MA's), (Start: 9 @31431 has 8 MA's), (10, 31476), (14, 31551), (15, 31599),

Gene: TomBrady_40 Start: 31425, Stop: 31775, Start Num: 7

Candidate Starts for TomBrady_40:

(2, 31356), (Start: 7 @31425 has 57 MA's), (Start: 9 @31437 has 8 MA's), (10, 31482), (14, 31557), (15, 31605),

Gene: Wendigo_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Wendigo_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: YangYin_40 Start: 32376, Stop: 32681, Start Num: 9

Candidate Starts for YangYin_40:

(1, 32289), (3, 32298), (Start: 9 @32376 has 8 MA's), (14, 32481),

Gene: ZoMa_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for ZoMa_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),

Gene: Zombie_40 Start: 31424, Stop: 31774, Start Num: 7

Candidate Starts for Zombie_40:

(2, 31355), (Start: 7 @31424 has 57 MA's), (Start: 9 @31436 has 8 MA's), (10, 31481), (14, 31556), (15, 31604),